

The Fourth "R"

An Action Booklet for Waste Reduction and Recycling in the Classroom and School

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"As teachers, we meet the future every time we open the classroom door. We share the accumulated knowledge and experience of our generation with our students, offering them lessons in how to better manage the world they will inherit. But advice isn't the only thing we'll be passing along to future generations; they'll also inherit an unavoidable legacy — garbage!" ¹

Let's face it. We have a garbage crisis. The problem is not new. Throughout history garbage has been a dilemma, and with our recent change to a throw-away society, the dilemma has grown into a crisis. Recycling resources, reducing consumption and reusing materials are some solutions to this problem. However, these solutions will require fundamental changes in institutional policies and individual behaviors.

Educators and educational institutions are frequently called upon to address issues when behavioral changes are needed. The garbage crisis is no exception. We are at a point in time which educators' refer to as a "teachable moment". Garbage and recycling are on everyone's mind. Teachers are being asked to address this issue by community leaders, and students are asking their teachers questions about it.

Now is the time to add a Fourth "R" — recycling — to the traditional three "R's" of reading, 'riting and 'rithmatic. Fortunately, Wisconsin already has the Recycling Study Guide and other educational materials for teachers to use. Many teachers are already teaching recycling in the classroom. But will just teaching about recycling really initiate the attitudinal and behavioral changes required to solve the garbage crisis? Probably not. We must practice what we teach; we must practice recycling, reducing and reusing to reinforce positive behaviors for dealing with our wastes.

This booklet is designed to do just that. Department of Public Instruction curriculum consultants and teachers from all over Wisconsin have contributed their ideas to help you practice recycling, reducing and reusing in the classroom and throughout the school system. Use this booklet as a guide to help your class and school get involved with an issue where they can have an impact.

" As a nation and as citizens of the world, we need to generate less trash by choosing our disposable items wisely and by carefully considering how they will eventually have an impact on our world. We need to create not only an interest in, but a strong social pressure toward recycling." $^{\rm 1}$

¹ "Practice What You Teach" by Juliana Texly, The Science Teacher, February 1990.

I. Daily Practices in the Classroom

All Grades/Classes:

- Separate classroom trash into paper vs. nonrecyclables.
- Keep a scrap box for various papers (one-sided, construction, small scraps, etc.)
- Use both sides of paper for reports, homework assignments, drawings, note-taking, work sheets, etc. Create a class motto, such as "Be Nice, Use It Twice!"
- · Make note pads from used paper.
- Have a "Save A Tree Day"—teach without using paper.
- Use white or (even better) unbleached paper when possible. Some dyes are contaminants and cannot be used in producing high quality recycled paper (check with your paper recycler).
- Require separate or special notebooks only when absolutely necessary.
- Require use of loose leaf notebooks instead of spiral notebooks. The binders are reusable and the paper is easily recycled.
- At the end of the year, stack notebooks for recycling. Remove spiral bindings and cardboard.
 Or, if much of the notebook is unused, encourage students to flip the notebook over, making the back cardboard the front cover, and use it again.
- Use paper towels conservatively.
- Reuse bulletin board paper for more than one month or one season.
- Reduce use of work sheets or put plastic sleeves over work sheets. Have students write with crayon and erase with carpet squares. Plastic sleeves are available from Dorfman Products in California.
- Maximize use of overhead projector and blackboard to minimize use of dittoed directions and information in the classroom.
- Keep a swap box for records, games, tapes, puzzles, toys, books, and magazines in the classroom.
 Students who bring items from home to be reused can place their names on a sheet and list what they bring (IN) and take (OUT).
- Use cooperative learning and manipulatives (hands-on activities) when possible. These save on paper and offer other benefits.

- Obtain masonite boards, roughly 12" x 18" or 8" x 12", depending on the size of the kids' handwriting. Paint these with two coats of chalkboard paint, "cured" by rubbing chalk across the board, and washed with a wet cloth. (Recycled, of course.) The rule-of-thumb on chalkboard paint is one pint per classroom. Students can use chalk to do their work and when the signal is given each of them can hold the board up in the air so that the teacher can see each student's work. Eraser? Old socks or small carpet scraps. Ask students to figure out a way to estimate the amount of paper saved (reduced) by using the boards for a specified period of time.
- Use "wipe clean" cards or "magic slates" when figuring math problems or practicing writing.
- When giving multiple choice tests, use testing sheets (like Scantron), as they are 1/4 the size of regular paper and can be machine scored.
- · Use the computer for drill and practice.
- Encourage use of pencils and crayons rather than throw-away plastic pens and markers.
- With older students, encourage use of refillable pens and mechanical pencils rather than throwaways.
- Use tape and staples sparingly.
- When changing classroom aquarium water, use it to water classroom plants.
- Turn off the lights when the classroom is not being used.
- Use items collected from home (food containers, etc.) for storage.
- Take care of books, computer diskettes, and other school materials so they last.
- Put a table in the hallway at the end of the year for students to put unwanted pencils, notebooks, etc. on. Bring the box of materials out at the beginning of next year for students to take and use these items.
- If school policy allows, have each student keep a reusable plastic or porcelain cup in the classroom for beverage breaks, treats, and parties. Younger students can decorate plastic cups with paint pens.
- Have students and staff place recyclable waste in regular waste baskets and place non-recyclables in centrally located trash barrels.

- Have students bring in the fronts of used holiday cards and place them in a box. Throughout the year have students cut them to regulation post card size. (3 1/2" x 5" to 4" x 6") Have them draw a line to divide the card so that one side can be used for the address and the other for the message. These cards are used for special class projects or by individuals to write thank you notes or notes to friends. Ask students to bring in a stamp and mail the cards from school.
- On field trips:
 - → bring soda cans back to school for recycling.
 - → bring work sheets on homemade clipboards and tie pencils to the clipboards.
 - → encourage students to use lunch boxes and reusable containers.
 - → bring a box for unwanted apples and oranges; make these available for snacks later on.
 - → bring a bag for picking up litter.

Art:

- Ask local industries, galleries, and print shops to donate materials they intend to discard that would be useful in your class (latex paint, paper, plastic containers, etc.)
- Use fabric scraps to wash art room tables. Let tables air dry when possible.
- Keep a box of construction paper leftovers for students to use when they need small pieces for a project.
- Use items collected from home (food containers, packaging etc.) for paint pans or clay sorting.
- Use pictures from magazines for art projects.
- Use scrap paper, cloth, and wood from other classes.
- Attempt to reduce the "supplies" budget for art classes for one year as an experimental alternative to expensive commercial traditions.
- Do not throw away broken crayons use them!
- Make projects out of natural or recycled materials when possible.

Family & Consumer Education:

- Utilize manufacturing simulations to minimize the need to purchase various supplies.
- Prepare small samplings of food products during labs to discourage wasting of foods.
- Make garments, toys, or games from recycled or reused materials.
- Alter and mend garments (saves on buying new garments). Change clothing to a new "style" by adding a scarf or other accessary.
- Keep swap boxes for used or unwanted patterns, buttons, material, notions, etc.

Technological Education:

- Save wood shop scraps for firewood (kindling) or art projects.
- Take care when using treated lumber. It contains poisonous chemicals— the sawdust is toxic.
- Sawdust recycling: See Wisconsin Technological Education Manufacturing Activity Guide.
- · Collect and repair old tools.
- Cooperate with local industries to supply you with parts, tools, supplies and waste wood they might discard but would be of use to your class.
- Use home collections of left-over latex house paints for projects.
- Use household containers in your activities (example: model rocket).
- Recycle used motor oil (look for used oil receptacles in your community).

Science:

- Make aquariums, terrariums, planters, scientific apparatus and tools from plastic bottles, jugs, utensils and other recyclables (Bottle Biology Resources Network, U-W Madison, 1630 Linden Dr., Madison, WI 53706).
- Design "mini-labs" using reduced quantities of chemicals and other supplies.

Creative Reusing:

Here are some suggestions for re-using various materials in your classroom:

Use	For
attendance sheets	. scratch paper
baby food jar	. beakers, storage
carpenter shavings	. classroom animal bedding
cereal box	. poster backing
checkbook box	. pencil/crayon box
coat hanger	. mobiles
construction paper scraps	. book marks
deodorant roll-on	tracing numbers, writing practice
egg carton	. seed collections
film canister	. paste jars, bug collections, soil samples
frozen juice container	. paint or water when painting
magazine pictures	creative writing illustrations, art projects, report covers
metal can	. pencil holders
milk cartons—plastic or paper	. bird feeders
old tire	. playground apparatus, flower/vegetable planters
one or two liter clear plastic bottles	
paper grocery bag	. text book cover, newspaper bundler (no strings!)
paper towel rolls	sending home papers with younger students
permanent wave bottles	. glue bottles
plastic laundry detergent bottles	containers for pencils, crayons, etc.
plastic lids	•
plastic milk jugs	. banks, art projects, hold water for activities
plastic peanut butter, cottage cheese,	test tube holders
polystyrene packaging(cups, burger containers, etc.)	. art projects
small milk carton	
toilet tissue cores	. bird feeders (roll in Peanut butter and seed)



II. Reduce, Reuse, and Recycle Throughout the School

General/Office/Administration:

- Make small pads of paper from scrap memos and dittos. Distribute to all teachers.
- Use "stickum" slips at a minimum, recycle used paper for notes.
- Reuse or recycle computer paper.
- Have rubber stamp made for hall passes and make passes on used paper.
- Maximize sharing of periodical print material within building to minimize the number of copies needed. Make students aware of the effort.
- Use recycled paper in your school and for school stationery. Successful recycling requires a market for products made from recycled materials — so schools should both supply and demand recycled products. See Resources for sources of bulk recycled paper.
- Use both sides of paper for all correspondence.
- Jot down main ideas of articles for teachers rather that duplicating entire articles. Keep articles on file for teachers who would like to read them.
- Write labs, tests, assignments, correspondence etc. on the computer and store on disks. Editing can be done without wasting paper.
- Assign school clubs or classrooms with recycling responsibilities (setting up bins, collecting and transporting materials, sorting, etc.)
- When installing updated copy machines in the office, invest in a two-sided copier. A duplex copier may cost more than a single-sided copier, but savings in paper and filing space will make it costeffective. Post clear instructions next to copier to make the process user-friendly.
- To save on office paper:
 - → write messages to teachers on partial pieces of paper.
 - → use routing slips to circulate memos
 - → post memos on a central bulletin board
 - → use the P.A. system for all morning announcements
- · Order supplies in bulk to reduce packaging.

- Ask to be removed from junk mailing lists, obtain a form at the local post office to remove names of employees from third-class mailing lists, from which most junk mail comes. Or you can write to Mail Preference Service, Direct Marketing Association, P.O.Box 9008, Farmingdale, NY 11735.
- Use white paper or (better still) unbleached paper instead of colored. White paper may be a higher grade than colored ledger on the recycling market and may sell for many times the price. Unbleached paper may not be as valuable for recycling, but it may be better for the environment (less pollution in production).
- Keep a box in the office for scrap paper for use in writing memos, teacher messages, announcements, etc.
- Maintain central files or computer files instead of filing everything in multiple files.
- Put the school on a mailing list of an environmental periodical so you will receive current information about recycling. See Resources.
- Post current prices for recyclable materials on a bulletin board.
- Put news and achievements regarding recycling in your school in the daily announcements.

Library:

- Reuse paperback books and magazines. Place a shelf in the room where students place books they bring in and exchange for others. Students who bring books in and who do not find a trade can place their names on a sheet or take a token for later exchange. Make sure the students' names are in their books so they will be returned to the proper owner.
- Sell or give away old books. Perhaps donate them to local charitable organizations, libraries, or organizations doing educational work in foreign countries.
- Save old films and filmstrips for art and other creative projects.
- Save magazines for art and current events projects.
- · Recycle newspapers.

Teachers' Lounge:

- · Collect coffee grounds for composting.
- · Share magazines with others.
- Put boxes and bins in the teachers' lounge for collecting recyclables.
- Set up a rack for teachers to hang their mugs or cups.
- · Get extra mugs for visitors.

Cafeteria and Food Service:

- Set up recycling bins in the cafeteria. Designate bins for aluminum, uneaten fruit, other food waste, and other specified recyclables. Use uneaten fruit for snacks, empty contents of the unwanted fruit bin into the school's compost pile several times a week or give to a local farmer or garden club.
- Distribute milk from a dispenser rather than in separate milk cartons, use washable glasses, or purchase milk in returnable or recyclable cartons.
- Use straws only when necessary.
- Use washable, reusable trays, plates, bowls, glasses and utensils.
- · Recycle cans and bottles from the kitchen.
- Separate out compostable materials such as clean vegetable and fruit scraps and coffee and tea grounds. Add these to yard materials; have students or grounds personnel compost and use these materials as fertilizer for the school gardens, lawn, and indoor plants.
- Reuse bulk containers for storage. Share extras with teachers and/or community groups.
- Encourage students to:
 - → bring their non-perishable lunch leftovers home so the food will be eaten rather than thrown away.
 - → eat healthy foods which have minimal packaging.
 - → use reusable containers and lunch boxes to store their lunch items.
 - → take only what they can eat.
 - → use lunch boxes or reuse their lunch bags.
 - → throw their aluminum cans into the cafeteria's recycling bin (a good fund raiser).
 - → take only one napkin.

Custodial/Maintenance Staff:

- Solicit help from classes and/or student clubs in maintaining grounds (picking up litter, tending to shrubs and gardens, etc.)
- Set up a visible place in the school for teachers to put "extra" work sheets. As the number mounts it can serve as a visual reminder to teachers and students.
- Set up area in school building for storage of cardboard boxes for recycling. Every week have one class be responsible for flattening the boxes for recycling.
- Install automatic room controls for lights. Install ceiling fans to replace AC units.
- Eliminate or reduce use of plastic trash can liners.
- Replace paper towel dispensers in washrooms with cloth roll or warm air type dryers.
- Put trash cans on the playground for candy wrappers, etc.



III. Educational Activities

All Grades/Classes:

- Develop a recycling display for use during parentteacher conferences, American Education Week, and other such events. Themes could include:
 - Environmental Shopping; Composting; How To Reduce, Reuse, and Recycle; Natural Cycles; Renewable vs. Nonrenewable Resources; Recycling Demonstration; Model Landfill; What Our Community is Doing About Solid Waste.
- Have your school give out an annual award for the best classroom resource conservation ideas. Send ideas to the Recycling Education Program at the Wisconsin DNR.
- Make use of foreign exchange students within the school and their cultural information concerning resource recovery in their country.
- Fill washed, empty egg shells with soil and plant seeds. As plants begin to grow the shell and all can be planted — the shell will decompose and nourish the soil.
- For younger students, make instruments from the following materials:
 - Tambourine 2 aluminum pie tins, paper plates and large bottle caps
 - Castanets bottle caps, baby food jar lids
 - Banjo wrap rubber bands around an open cigar or shoe box
 - Maracas fill small plastic jars with beans or rice Drum — a coffee can or other large can
- Develop a list of environmentally safe school supplies and use them!
- Put posters on the walls of the schools alerting students to practice reducing, reusing, and recycling.
- Plant trees. (Perhaps manage a school forest for pulp trees.)
- Develop Public Service Announcements or Consumer Bulletins and place them in the school or local newspaper and radio stations to educate people about recycling. Some of these could be oriented toward specific target groups.
- Have students make a presentation to the school board regarding recycling policies. For example:
 - → Students can explain what they are doing to conserve in the classroom and to encourage the board to make their policies conservationoriented.
 - → Students research different areas of waste in your school (food, paper, plastics, etc.), develop and present ideas on how to reduce this waste.

- Have a Reuse Day at school. Have students wear clothing handed down from someone else and bring in materials which have been re-used instead of thrown away.
- Have students research, write, act in, and produce a video tape (15 minutes max.) on:
 - Recycling in the home, composting, proper disposal of household hazardous waste, or environmental shopping.
- To generate student concern about the issue, show films/videos on the impact of refuse on animals, drinking water, and other resources that directly affect students' lives and interests.
- Go on litter pick-ups regularly and sift through trash to find recyclable materials.
- Make new toys out of old toys or recyclable materials.
- With younger students, collect old tape recorders, record players, clocks, phones, etc., put them on a "take-apart" table, and have students take them apart to see what is inside. Save knobs and other interesting components and conduct an "Invention Convention".
- Teach students how to make a compost pile. Start
 a compost pile and either sell/give away the
 compost to a local farmer or gardener or use on
 schoolyard plantings. See the Recycling Study
 Guide for more composting ideas.
- Take your class on a 1-3 mile Ecology Hike or Wellness Walk to a nearby park and collect garbage on the way. Separate the garbage into recyclables and non-recyclables. Bring the collected garbage back to school and graph what you found. This information can be compared from year to year. Celebrate cleaning your area by having a picnic at the park using re-usable and recyclable containers and tableware.
- Have high school sociology classes design and conduct a survey to help determine what type of recycling program would be best for your school.
- Have older students read A Sand County Almanac by Aldo Leopold. Discuss Leopold's views regarding the management and our responsibility for our resources. Pay particular attention to the essay "A Man's Leisure Time". Gary Laib, Poynette High School, Poynette, WI 53955 has an activity guide for this book and essay.
- Give students addresses of local recycling collection centers and encourage students to take these home to their parents.

 Bury some trash from the classroom in the ground in September and uncover it in May to see how biodegradable each item is. Hang photodegradable plastic where it will have exposure to the sun and monitor its changes.

Art:

- · Create "sit-upons" out of cardboard or plastic.
- Teach a unit on product and packaging design which includes design consideration for recycling and reducing packaging materials.
- Design recycling graphics to put on boxes for collection of cans and paper.
- Design new cards and wrapping paper by using pieces of old birthday cards, tissue paper, and grocery bags students bring from home.
- Make puppets from used lunch bags.
- Make "New Depression Art" or "Junk Art" mobiles, sculptures, robots, etc. — using collected objects.
- Make paper from used paper, cloth, and string. Do paper molding projects or collage art with paper making by adding recycled colorants, such as paints, vegetable dyes, coffee, etc.
- Make papier-mache' projects (flower pots, waste baskets, recycling bins) from newspaper.
- Decorate paper bags and use them for collecting recyclables.

Family & Consumer Education

- Develop a unit or module on consumption/waste, it could include:
 - → a concept analysis of the meanings of consumption and waste.
 - → an examination of how culture and background influence attitudes and behaviors of consumption and waste.
 - → a discussion on future trends/prospects of American consumption patterns on resources in the future.
 - → an examination on what the various forms of media portray in regard to consumption, packaging and waste.
 - → a discussion of factors that cause changes in American consumption and waste patterns.
 - → surveys of various age groups for views of consumption and waste.
 - → identification of values/beliefs associated with specific patterns on consumption and waste.
- Set up a home recycling system in class: collect and recycle newspaper, aluminum, plastic, tin, glass, etc.
- Promote a "waste-less" campaign in the school or community as a class or FHA-HERO project.

- Have students investigate products/items that they buy. Have them check to see if the packaging is recyclable, and if not, what recyclable substitutes can be found.
- Have students develop a list of products that use too much packaging, find the names and addresses of the manufacturers, and write to them expressing their concerns and suggested alternatives.
- Invite a local landfill manager, recycling center operator, waste disposal service worker, etc. to speak on solid waste concerns and ways the community could waste less.

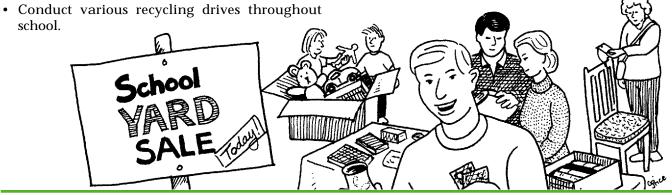
Technological Education:

- Conversion of food by means of methane generation: using food waste from school cafeteria discover how methane gas may be produced. Basic materials — food scraps, livestock manure, water, mixing apparatus, 5 or 10 gallon containers, valves & balloons.
- Conversion of plastic by means of combustion: burn identical weights of different kinds of thermoplastics, determine the combustion efficiency by determining which plastic raises the temperature of a given amount of water the highest.
- Conversion of paper by means of combustion: as for plastics above.
- Recycling paper by means of paper making: use newspaper, magazines, rags, etc. to form new paper from pulp.
- Aluminum recycling by means of casting: melt scrap aluminum in a foundry and cast into new products.
- Build a paper baler or can smasher. See Bame-Cummings Activity Manual, Davis Publications for instructions.
- Conduct an environmental impact study. See Understanding Technology Activity Guide by Davis Publications.
- Conduct a home energy audit. See Understanding Technology Activity Guide by Davis Publications.
- Solicit old technical journals from local industries for students to use.
- Repair small appliances, lamps, electric motors, small gas engines, etc.
- Refinish and repair wood furniture.
- Build recycling and composting bins for school or community use.
- Build projects with "plastic lumber" made from recycled plastic.

IV. Taking It Further: Special Projects for the School, Community Service, and Fund Raising

- · Use recycling as a year-long club project.
- Donate money collected from recycling to:
 - → Local charities
 - → Buy bird seed for the school's bird feeding station
 - → Support school recycling activities
 - → Purchase equipment for students with special needs
 - → Support special field trips and projects
 - → School environmental education activities
 - → Supporting local, state, or national conservation organizations.
- Develop booklets, coloring books, and skits on recycling.
- Develop a reading area or site in the Library/IMC that would include up-to-date information and articles concerning the solid waste issue and recycling. Include information on selective shopping.
- Recycle old textbooks. See Resources.
- Establish a school account at the local recycling center. Payments for materials brought in by parents and community members can, in this way, be credited to fund school projects.
- Repair toys for school children or an empty stocking club.
- Have a Repair Workshop Day sponsored by the shop class. School and community members can bring bicycles, small appliances, tools, etc. to the workshop for repair. This could be used as a fund raiser.
- Make and sell newspaper logs. Wrap newspaper tightly around a broom stick (use twine or thin wire to hold the roll tight), soak in water, remove broom stick, and dry thoroughly.

- Host a technology fair at the high school level. Develop/display new products made from recycled materials.
- · Host an art fair featuring art from recycled items.
- Conduct a Recycling Invention Fair or Invention Convention.
- Have students plan and conduct an annual garage sale to encourage re-using.
- Make "pet" litter and animal bedding from newsprint. Have kids shred the paper, package it, and sell it!
- Repair tools or appliances and give to needy citizens.
- Collect old school books, clothes, and toys for the needy.
- Make reusable shopping bags out of heavy fabric, silkscreen a logo on them and sell them as a fund raiser.
- Make quilted shades for school windows to help conserve energy.
- Use cloth scraps and rags to make rugs, quilts, school banners, shopping bags, and other projects.
- Make recycled holiday cards for senior citizens and needy people to use.
- Collect and distribute magazines for senior citizens and the needy.
- Implement an all-school Project Earth program for the school year. Designate each month for a special topic (Endangered Species Soil, Water, Land Use, Pollution, etc.). Incorporate solid waste management into one of these themes.



V. Setting Up a School Recycling Program

A school recycling program may not make money, but it will cut down on waste and disposal costs. It also reinforces positive behaviors associated with conserving our natural resources. The school will teach by setting an example and all of society will benefit.

Before you start a recycling program, find out what can be recycled in your community. Check the yellow pages under "Recycling". Call community or private recycling centers and buyers of recycled materials. Your municipality or county may already have a program that you can participate in — call your Departments of Public Works or Solid Waste Management. They have several publications from the Department of Natural Resources that will help you find recycling programs in your community. Next, inventory your school's trash to determine what types and amounts of waste you are generating and what is recyclable. Once you find out what is recyclable in your community and what makes up your waste stream, you can set up your program.

Some helpful hints:

- Before you recycle reduce the amount of material requiring disposal by purchasing durable and reusable products, buying products in reusable containers or in simple packaging, buying in bulk, and following the suggestions in the other sections of this pamphlet.
- A school recycling program may be organized through:
 - → school district administration
 - → school building's administration
 - → student council or other student organization
 - → student organization
 - → teacher or class
 - → community recycling project
- Program organizers should work with students and the administration, teaching, cafeteria, and custodial staff in setting up the project.
- If a school wishes to receive financial compensation for recyclables, it may have to deal directly with buyers of recycled materials or coordinate this effort with its local unit of government.



- Students can do most or all aspects of the program including purchasing and waste stream surveys, market analysis, project development, container design and construction, promotion, collection, and monitoring.
- Use a special event or rally to "kick off" the program and provide periodic feedback and recognition to participants.
- Recycling containers should be easy to identify and readily accessible to everyone that needs to use them.
- Although schools generate large quantities of MIXED SCRAP PAPER, it may be preferable to keep LEDGER, KRAFT (brown bags), and NEWSPAPER separate. Check your local markets. LEDGER or white office paper is higher quality and may be the easiest to sell. If this is your most marketable item, consider using white paper for most of your paper needs.
- Make it clear to all participants that certain contaminants common in school facilities must be kept out of recyclable paper: paper towels, facial tissues, cellophane wrappers, stencils, carbon paper, and waxed paper.

VI. Resources

Purchasing Products with Recycled Content:

Recycled Products Clearinghouse, Wisconsin Department of Administration, Bureau of Procurement, 101 East Wilson, 6th floor, P.O. Box 7867, Madison, WI 53707. 608/267-1820.

Periodicals/Newsletters Containing Recycling Information:

AROW Newsletter, Associated Recyclers of Wisconsin, write to: Bill Tarman-Ramcheck, c/o City of Wauwatosa, 7725 W. North Ave., Wauwatosa, WI 53213

Audubon Activist, National Audubon Society, 950 3rd Ave., New York, NY 10022

Biocycle, 419 State Ave., Emmaus, PA 18049

EE News: Environmental Education in Wisconsin, Wisconsin Department of Natural Resources, Box 7921, Madison, WI 53707.

Garbage, Dovetail Publications, The Black Tavern, 2 Main St., Gloucester, MA 01930

Resource Recycling, P.O.Box 10540, Portland, OR 97210

Waste Age, Suite 1000, 1730 Rhode Island Ave., NW, Washington D.C. 20036

Wisconsin Natural Resources Magazine, Wisconsin Department of Natural Resources, Box 7921, Madison, WI 53707

Recycling Textbooks:

International Book Project, 1440 Delaware Ave., Lexington, KY 40505. 606/254-6771

Finding Recycling Markets:

Wisconsin Recycling Markets Directory: Buyers and Users of Recyclable Materials. 1993. Publ SW-089. Wisconsin Department of Natural Resources, P.O. Box 7921, Madison, WI 53707. 608/267-7566. Or, contact your local unit of government responsible for recycling; most local units of government have a copy.

Implementing Recycling Programs:

Business & Commercial Recycling: A Guide to Recycling in the Workplace. 1992. Publ SW-050. Wisconsin Department of Natural Resources, Waste Reduction and Recycling Section, P.O. Box 7921, Madison, WI 53707. 608/267-7566.

Community-Based Waste Recycling: How to Get Started, Publ. B3444, University of Wisconsin Cooperative Extension. Contact your County Extension Office.

Educational Resources:*

K-3 Supplement to Recycling Study Guide. 1990. PUBL-IE-049. Wisconsin Department of Natural Resources.

Nature's Recyclers Activity Guide. 1990. PUBL-IE-043. Wisconsin Department of Natural Resources.

Nature's Recyclers Coloring Book. 1990. PUBL-IE-042. Wisconsin Department of Natural Resources.

Recycling Study Guide. 1993. PUBL-IE-020. Wisconsin Department of Natural Resources.

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The Fourth "R" Pledge

Become an official "Recycling School"! By signing the pledge below, your school will be recognized as a fine learning institution that teaches and practices the Four "R's" — reading, 'riting, 'rithmatic and recycling. For your participation, you will receive local recognition (a news release will be sent to your local paper), a "Recycling School" sticker for your entrance door and a recycling education packet.

Sign the Fourth "R" Pledge, fill in your school's name and address and mail to:

Recycling Education Coordinator D.N.R., IE/6 Box 7921 Madison, WI 53707



The Fourth "R" Pledge

We recognize that the garbage crisis is an issue facing all of us today and that we must do our part as students and educators to help solve this problem. We believe that we can help by recycling resources, reducing consumption, and reusing materials. We pledge to teach and practice the Fourth "R"—Recycling — in our school building and to set a positive example for others in our community.

Principal's Signature	Date	
Name of School		
Address		
	Zip Code	
County		